In 2019, Central Concrete Supply Company, a business unit of U.S. Concrete, supplied concrete made with the CarbonCure Technology for the construction of a 245,000 square-foot LinkedIn Middlefield Campus. As a result of using CarbonCure, Central Concrete helped LinkedIn save 240,000 pounds of carbon dioxide (CO₂). By deploying multiple low-carbon concrete initiatives, LinkedIn reduced the carbon footprint of its concrete for this project by 4.8 million pounds (2,400 tons).
LinkedIn’s Carbon Commitment

Jennifer Mitchell, Lead of Headquarters Capital Projects, Workplace at LinkedIn, began her career at a concrete company, designing concrete mixes for Silicon Valley construction projects. For twenty years, she has been researching, testing and advocating for sustainable concrete solutions.

After being designated as the person responsible for overseeing the construction of LinkedIn’s new headquarters, Mitchell knew that concrete could play an important role in achieving the company’s aggressive carbon reduction goals — which include a 75% reduction in carbon emissions for all of its offices by 2030.

After Mitchell consulted with her industry network to learn what new technologies were available to reduce concrete’s carbon footprint, CarbonCure was presented to her as just the innovative solution she was looking for.

However, Mitchell says it was challenging to educate and gain acceptance of CarbonCure in the engineering and construction communities; the industry has been working the same way for so long, they were skeptical of new technology. But with climate change accelerating, Mitchell knew that they needed to use a more sustainable approach.

Fast Facts

LinkedIn is the first tech company in Silicon Valley to utilize the CarbonCure Technology on a specified building.

240,000 pounds of the carbon reduction for this building’s construction comes from the concrete made with CarbonCure.

4.8M pounds of CO₂ emissions saved by building the LinkedIn Headquarters with low-carbon concrete. That’s equivalent to 2,850 acres of forest absorbing carbon for a year.
A Sustainable Concrete Solution

Mitchell proceeded to partner with CarbonCure and local CarbonCure concrete producer, Central Concrete Supply Company, a business unit of U.S. Concrete, to make the case to the engineers and construction crews.

By the combined teams’ calculations, adding concrete made with CarbonCure to LinkedIn’s existing initiatives would reduce the carbon footprint of the building by an additional 5%, equalling 240,000 pounds of carbon savings.

240,000 pounds of carbon emissions is equivalent to approximately 150 acres of trees absorbing carbon in a year, or the emissions from driving 270,000 miles of a gas-powered vehicle.

Once presented with the data, all teams came on board and history was made: LinkedIn became the first tech company in Silicon Valley to utilize CarbonCure concrete on a specified building.

“The stakes around climate change are so high, so irreversible, low-carbon concrete is really the only option we should be considering,” Mitchell said.

“At LinkedIn, we take our core sustainability values seriously, and they are now part of our actual building foundation. I think every new building should use low-carbon concrete technologies.”
The Low-Carbon Concrete Initiative

To reduce the carbon footprint of the concrete for its new headquarters, LinkedIn followed two strategies:

1. **Cement replacement**: LinkedIn reduced the amount of cement used in the building’s concrete mixes by replacing cement with flyash (a by-product of the coal industry) and slag (a by-product of steel production) by as much as 70% in certain applications. These Supplementary Cementitious Materials (SCMs) allowed the sequestration of post-industrial waste, which can pose a significant environmental risk.

2. **Mineralized carbon**: LinkedIn also opted to use concrete made with CarbonCure supplied by Central Concrete Supply Company. The CarbonCure Technology injects CO$_2$ captured from large emitters into concrete during mixing. Once injected, the CO$_2$ converts into a mineral, permanently eliminating what were once harmful emissions. This mineralization process increases the concrete’s strength, enabling manufacturing efficiencies for producers and further carbon footprint reductions.

According to Mitchell’s approximation, LinkedIn’s low-carbon concrete strategies will result in 4.8 million pounds (2,400 tons) of CO$_2$ saved.

“That’s a 30% reduction over business as usual,” Mitchell said.
I think low-carbon concrete is going to become the industry standard. When we look back 20 years from now, we’re going to say this had a big impact on what the built environment is.

— Herb Burton
Vice President and General Manager, Central Concrete Supply Company, U.S. Concrete West Region
CarbonCure’s carbon utilization technology enables concrete producers to make low-carbon concrete, gain a competitive advantage and grow their business with the green building market — all while reducing the embodied carbon footprint of the built environment. If you would like to learn more about how CarbonCure can help you meet your business and sustainability goals, contact a CarbonCure representative today at info@carboncure.com or +1 (902) 442-4020.